SESSION
GENERAL COGNITION II
11.00 – 12.20
Conference and lecture hall C

Chaired by T. FERNANDES

11.00 – 11.20

The Metamorphosis of the Statistical Segmentation Output: Lexicalization during Artificial Language Learning #446

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This study combined artificial language learning (ALL) with conventional experimental techniques for testing whether statistical segmentation outputs could be integrated in adults' mental lexicon. This was attested through the inhibitory priming effect of those novel neighbors (e.g., cathedruke) on lexical decisions to real-words (e.g., cathedral). In both experiments AL words occurred with the same frequency as AL part-words. ALL outputs were lexicalized only when the cues available during AL-familiarization suggested the same parsing (Experiment 1). With incongruent cues (Experiment 2) no lexicalization effect was observed, although ALL level differed from chance, suggesting a dissociation between AL-items' knowledge and AL-items' lexical engagement. Whereas in Experiment 1 (when the available speech segmentation cues were congruent) ALL outputs were lexicalized, in Experiment 2 (in incongruent cues condition no lexicalization of ALL outputs was found, both immediately after AL-familiarization and post-one week. Therefore, congruency of the available segmentation cues plays an important role in speech segmentation and word learning.

Christina 11.20 – 11.40

Co-representing Action Rules in a Shared Bimanual Paradigm #447

C. JAGER, A. HOLLANDER, W. PRINZ, Max Planck Institute for Cognitive and Brain Sciences

When individuals are acting in close proximity they share the same workspace. Within this workspace external stimuli and actions referring to one's own task are accessible to all other individuals in the same setting. Recent findings show that one takes the aspects of a co-actor's task into account as well. This co-representation leads to impairment of one's own actions, even when different aspects of the task are performed. The present study investigated the impact of shared representation on movement planning. Subjects shared a symbolically cued bimanual reaching task with varying movement amplitudes. A partial (individual) and a shared (joint) condition were conducted to evaluate the impact of social setting on the underlying mechanisms of co-representation. Interference in movement preparation processes emerged when a co-acting partner was required to perform a different action concurrently. When the same actions had to be executed no such interference showed up. Notably this interference effect only emerged if information about whose turn it was in a given trial (one subject or both subjects) was given in advance of the imperative cue.

Stella 11.40 – 12.00

Visual Experiences form the appreciation space of object categories #448

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For objects categories typicality is an important predictor for the aesthetic appreciation, since more typical stimuli are preferred in comparison to more atypical ones. But how do visual experiences, which shape our visual habits, change this appreciation space? We observed the typicality and appreciation of entities of the object class "chairs" (varying on two orthogonal dimensions saturation and inflation on ten levels each). In test-retest designs we investigated the influence of the adaptation to stimuli with extreme values of these dimensions on the perceived typicality and appreciation of the stimuli. Adaptation took place in a systematic way. Perceived typicality and attractiveness were assessed in direction of the adaptation stimuli. Thus, new experiences form the appreciation space of objects.

Duncan 12.00 – 12.20

The time course of perceptual processes in absolute identification #449

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Current models of absolute identification emphasise different processes as the underlying cause of observed patterns of choices and response latencies in the task. According to one model, the Extended Generalized Context Model (EGCM; Kent &Lamberts, 2005), behavioural latency patterns are directly linked to stimulus sampling processes; all other models emphasise the response selection stage. In two tasks (one using visual stimuli and one using auditory stimuli) in which stimulus exposure duration was manipulated, we demonstrate that stimulus sampling is very rapid, but time to respond is long. This is contrary to the EGCM predictions and implicates response selection processes. In addition, analysis of the speed-accuracy relationship produced by manipulations of set size, stimulus spacing and exposure duration exhibited stable individual differences in not only magnitude, but direction. Overall, the results do not support the emphasis on stimulus sampling in the EGCM, but do suggest downstream influences of stimulus sampling that are neglected in other models.

SESSION
SOCIAL ASPECTS OF ATTENTION
11.00 – 12.20
Seminar room 1

Chaired by L. COLZATO

11.00 – 11.20

Losing the big picture: How religion may control visual attention #450

L. COLZATO[1], C. SCOROLLI[2], W. VAN DEN WILDENBERG[3], A. BORGHI[2], B. HOMMEL[1]
[1]Leiden University
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Despite the abundance of evidence that human perception is penetrated by beliefs and expectations, scientific research so far has entirely neglected the possible impact of religious background on attention. Here we show that Dutch Calvinists and atheists, brought up in the same country and culture and controlled for race, intelligence, sex, and age, differ with respect to the way they attend to and process the global and local features of complex visual stimuli: Calvinists attend less to global aspects of perceived events, which seems to fit with the idea that people's attentional processing style reflects possible biases rewarded by their religious belief system. Preliminary data about Italian Catholics and laics will be discussed as well.

11.20 – 11.40

Visual attention to social cues #451 A. PECCHINENDA, University of Hull

From the emotional expression of a face and from the direction of eye gaze we make inferences about another person's focus of interest, their mental state and intentions. This information can be complex but also ambiguous and it would make good adaptive sense for an observer to integrate these different sources of information when making inferences as to whether somebody is looking at something good or bad in the environment. Surprisingly, past research shows that this is not the case. Using the spatial cueing paradigm, we investigated whether the observed direction of eye-gaze and facial expression affect spatial attention, provided the presence of a contextual goal. Results showed evidence of a top-down modulation of visual attention to social cues under these conditions. The implications of these findings for current theories are discussed.